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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,409	02/27/2004	Woong-Kwon Kim	053785-5172	4533
9629	7590	06/02/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			CHIEN, LUCY P	
			ART UNIT	PAPER NUMBER
			2871	
DATE MAILED: 06/02/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary	Application No. 10/787,409	Applicant(s) KIM ET AL.	
	Examiner Lucy P. Chien	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____:
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-40 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The inventions are distinct, each from the other because of the following reasons:

I. Claims 1-33, drawn to a transfective liquid crystal display device, classified in class 340, subclass 114.

II. Claims 34-40, drawn to a method of fabricating a transfective liquid crystal display device, classified in class 349, subclass 187.

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the method of fabricating a LCD device can be used to make a plasma liquid crystal device.

Election/Restrictions

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species group I: Specifics being a transfective liquid crystal display device having a color filter-on-thin film transistor structure Figures 3-6,8-10D.

Species group II: Specifics being a reflective and transmissive portion within a pixel region of a transfective liquid crystal display device shown in Figures 7A-7K.

Species group III: Specifics being transfective LCD devices each having a color filter-on-thin film transistor structure and buffer patterns.

Under each species group applicant must elect one of each species.

Species group I

Species I: Specifics being a transfective liquid crystal display device having a color filter-on-thin film transistor structure where the gate electrode 112 and reflector 114 is formed on the same material shown in *Figure 3*.

Species II: Specifics being a transfective liquid crystal display device having a second metal layer 212b, 214b and a semiconductor layer 218 disposed on the gate insulating layer above the gate electrode shown in *Figure 4*.

Species II: Specific being a transfective liquid crystal display device where the reflector 322 is formed on the gate insulating layer 314 shown in *figure 5*.

Species III: Specific being a transfective liquid crystal display device where the source electrode, drain electrode, and reflector has a triple-layer structure shown in *figure 6*.

Species IV: Specific being a transfective liquid crystal display device includes a first and second buffer pattern with thickness D1 of the first portion 738a is less than the thickness D2 of the second portion 738b shown in *Figure 8*.

Species V: Specific being a transfective liquid crystal display device where the first opening 834 may expose the edge portion of the drain electrode 822 and the second opening 836 exposes the substrate 810. Also, the thickness D2 of *Figure 9* is larger than the second thickness D2 in Fig. 8.

Species Group II:

Species I: A reflective and transmissive portion within a pixel region of a transfective liquid crystal display device where the reflective portion 512 has a rectangular shape where the diagonal lines of transmissive portion 510 exactly corresponds to the diagonal lines of reflective portion 512. Also, the reflective portion is centered in the transmissive portion. *Shown in Figure 7A*.

Species II: A reflective and transmissive portion within a pixel region of a transflective liquid crystal display device where the reflective portion 522 has a rhombic and diamond shape and the diagonal line of the transmissive portion 520 is perpendicular to diagonal lines of the reflective portion 522. *Shown in Figure 7B.*

Species III: A reflective and transmissive portion within a pixel region of a transflective liquid crystal display device where the reflective portion 532 has a hexagonal shape. *Figure 7C.*

Species IV: A reflective and transmissive portion within a pixel region of a transflective liquid crystal display device where the reflective portion 542 has an octagonal shape. *Figure 7D.*

Species V: A reflective and transmissive portion within a pixel region of a transflective liquid crystal display device where the reflective portion is disposed at one corner of the transmissive portion so that two sides of the reflective portion contacts two sides of the transmissive portion. *Figure 7E.*

Species VI: A reflective and transmissive portion within a pixel region of a transflective liquid crystal display device where the reflective portion is disposed at one side of the transmissive portion so that one side of the reflective portion contacts one side of the transmissive portion. *Figure 7F.*

Species VII: A reflective and transmissive portion within a pixel region of a transflective liquid crystal display device where the reflective portion has a right-angled triangular shape. Two sides of the reflective portion correspond to two sides of the rectangular transmissive portion but do not contact them. *Figure 7G.*

Species VIII: A reflective and transmissive portion within a pixel region of a transflective liquid crystal display device where the reflective portion has a right-angled triangular shape. The hypotenuse right-angled triangular reflective portion is surrounded by an ad border on the transmissive portion. *Figure 7H.*

Species IX: A reflective and transmissive portion within a pixel region of a transflective liquid crystal display device where the 2 right-angled triangular reflective portion side is at one corner of the rectangular transmissive portion where the hypotenuse of the reflective portion borders the transmissive portion. *Figure 7I.*

Species X: A reflective and transmissive portion within a pixel region of a transflective liquid crystal display device where the reflective portion is an isosceles triangle bottom side contacts the bottom side of the transmissive portion and the other sides of the reflective portion have equal sides. *Figure 7J.*

Species XI: A reflective and transmissive portion within a pixel region of a transflective liquid crystal display device where the isosceles triangle reflective portion contacts the top side of the transmissive portion. *Figure 7K.*

Species Group III:

Species I: The black matrix 946 is formed above the color filter 92 to cover thin film transistor T. *Figure 10A.*

Species II: The black matrix 1040 is formed on the passivation layer 1038 especially above the TFT T. *Figure 10B.*

Species III: The planarization layer is formed on the color filter. And above the planarization layer is the black matrix 1148. *Figure 10C.*

Species IV: The planarization layer is formed between the color filter and a transparent pixel electrode. The black matrix 1240 is formed on the passivation layer 1238 especially above the TFT T. *Figure 10D.*

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1, 22, and 29 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

Art Unit: 2871

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucy P. Chien whose telephone number is 571-272-8579. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lucy Chien
Examiner
Art Unit 2871
LC


ROBERT H. KIM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800